

Electric Recovery Winch

Model: Rhino 12

PN: 851212 12V DC 851224 24V DC 851228 24V DC

Introduction

▶ Feature

Line pull: 5,440 kg / 12,000 lb single line (SAE J706 rating)

5,100 kg single line (EN 14492-1 rating)

Brake: Automatic, full load cone brake

Clutch: Turn the T-handle for rapid wire rope payout

Control: Handheld pendant switch powers the winch

Recommended * 12 mm x 21.4 m, 1,960 N/mm2 grade with a minimum

wire rope: breaking strength of 100.5 KN required for EN 14492-1

rating

* 1/2" x 100', EIPS grade with a minimum breaking strength

of 22,552 lbf required for SAE J706 rating

Installation

Before using the winch, make sure all electrical components have no corrosion or damaged; the environment should be clear and dry.

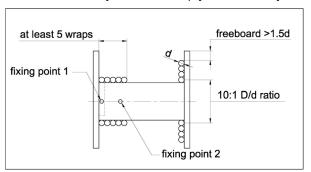
▶ Mounting

- Winch shall be mounted on a flat and hard surface.
- Winch should be mounted as closed to center and as horizontal as possible to the direction of the line pull.
- · Wire rope shall be wound in an under-wound orientation only.
- Eight (8) M12 X 1.75 pitch 8.8 grade w/76 N-m torque setting (maximum) high tensile steel bolts must be used in order to sustain the loads imposed on the winch mounting.
- Two (2) M12 x 1.75 pitch 8.8 grade w/76
 N-m torque setting (maximum) high tensile steel bolts must be used for fastening the roller fairlead into the mounting channel.
- · It is always preferred to use both tie bars in the final installed configuration.

Compliance with EN 14492-1

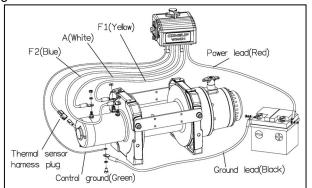
The winch complies with European Standard of EN 14492:2006 Power-Driven Winches, CE Machinery Directive 2006/42/EC and CE EMC Directive 2004/108/EC provided that the OWNER or END USER complies with all responsibilities described below.

- Refer to the Instruction Manual to install winch for safe winching operation.
- 2. Fit the recommended wire rope to comply with EN ratings:
 - * Rope drives with steel wire rope shall be dimensioned
 - * At least 2:1 wire rope working coefficient for the first rope layer.
 - * At least 10:1 D/d ratio to the centre of the rope
 - * Drum freeboard shall be at least 1.5 x rope diameter.
- 3. The wire rope must be painted red for 1.6 m on both ends and at least five (5) wraps of wire rope remained around the drum to comply with EN ratings:
 - * At least two rope windings on the drum.
 - * Rope attachment to withstand 2.5 x the remaining static force.
- 4. Fit an emergency stop switch to comply with emergency stop function.
- 5. Fit a hook with a safety latch to comply with a safety hook.



▶ Wiring Diagram

- Connect thermal sensor harness plug, control ground, and cable A/F1/F2 to the motor.
- Attach the ground lead firmly to the negative (–) battery terminal and power lead to the positive (+) battery terminal. The voltage drop for the winch motor must not exceed 10% of the nominal voltage of 12/24V DC.
- The over-load protector built in the control box shall be manually reset after reducing the load.



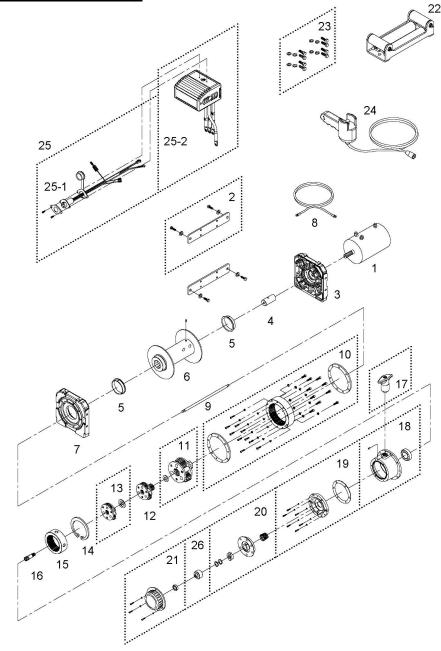
Warning

- The winch is not intended to be used in any manner for the movement or lifting of personnel.
- The rated line pull shown is based on the first layer of rope on the drum for the winch only, consult the wire rope manufacturer for wire rope rating.
- The rope winding on the drum shall remain 5 wraps from the drum.

Parts List

Item No.	Description	Part No.	Qty
1	Motor 12V	882439	1
	Motor 24V	882440	
2	Tie bar kit	881583	2
3	Motor support rack kit	881595	1
4	Motor coupling	880047	1
5	Drum bushing	880048	2
6	Drum kit	881596	1
7	Gearbox support rack	881597	1
8	Grounding lead	880009	1
9	1st shaft	880053	1
10	3 rd ring gear kit	882436	1
11	3 rd stage carrier kit	881944	1
12	2 nd stage carrier kit	881943	1
13	1 st stage carrier kit	880107	1
14	C ring	880058	1
15	1 st & 2 nd ring gear	880059	1
16	1 st pinion kit	880060	1
17	Clutch kit	880061	1
18	Gear box kit	882437	1
19	Brake base	882438	1
20	Cone brake disc kit	880021	1
21	Brake cover kit	882423	1
22	Roller fairlead	882481	1
23	Mounting hardware	881598	1
24	Remote control	880126	1
25	Control box 12V	881645	1
	Control box 24V	881646	
25-1	Remote socket kit 12V	881373	1
	Remote socket kit 24V	881374	
25-2	Control pack 12V	881647	1
	Control pack 24V	881648	
26	Brake clutch base	881434	1





2022/03/07 Ver:18